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EXAMINER

BELOUSOV, ANDREY

ART UNIT

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2174

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/761,666	Applicant(s) LAMBERT ET AL.	
	Examiner ANDREY BELOUSOV	Art Unit 2174	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 10-11, 14- 22, 23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 10-11, 14- 22, 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is responsive to the amendment filed on 7/15/2009. Claims 1-5, 10-11, 14-22, 23 are pending and have been considered below.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-5, 10-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-5, 10-11 recite the limitation "the source code" in line 19. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5, and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parker (5,600,789.)

Claims 1: Parker discloses in a computerized system environment including computer-executable instructions, and a plurality of interfaces for accessing the computer-

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executable instructions, a method of testing the computer-executable instructions through each of the plurality of interfaces using a single testing program, the method comprising the acts of:

- a. identifying a plurality of interfaces ("GUI-specific instantiations," 5:43-45; Fig. 1: "1-2-3 for OPENLOOK", "1-2-3 for Motif", etc.) that are intended to access an identified application program (Fig. 4: 300);
- b. identifying an application program interface (super class embodied in the test script; 5:63-66) that is common to each of the plurality of interfaces that can access the application program, such that a function of the application program that can be accessed by each of the plurality of interfaces can be tested (Abstract);
- c. through a test program (Fig. 4: test tool: test executive + test driver), providing at least one representation of a first value ("T commands embodied in the test script", e.g. "MENU_Pick("File/Open)") and "TF_SetText("\$Filename", "A"), Table 2) to the application program through the common application program interface (8:26-27);
- d. receiving a result from the application program (11:57-12:31);
- e. based on the value of the result from the application program, determining that each of the plurality of interfaces is interoperable with the application program (i.e. validation: 3:63-67; 11:57-12:31) regardless of a user interface that will implement the common application program interface (paragraph 34 and 35 of Applicant's Specification details that the determination from the result returned

from the application program is that the application program, and not the plurality of tested interfaces that is interoperable with the API. The specification then infers, based on the determination, that any user interfaces that would utilize the common API would then therefore be interoperable with the application program through that common API. As such, the GUI-specific instances of Figure 1 in Parker, that implement the super class, as disclosed, would therefore be interoperable with the application program based on similar reasoning);

- f. identifying one or more other application program interfaces that are common to the identified user interfaces (test executive ported for another platform, 34:4-18; Fig. 15: 814); and
- g. converting the test program (the test driver portion of the test tool, e.g. test driver 3, Fig. 15: 812), by, using a conversion module, taking the source code and recompiling ("the test tool has test drivers for all of the popular GUI's, a given test script can drive not only multiple targets simultaneously, but multiple heterogeneous targets", 34:4-6; "the test executive relies on its own portable multi-threading package", 34:16; Fig. 15) source code of the test program to function with at least one of the one or more other application program interfaces, such that the test program is configured to access the identified application program through at least one of the one or more other application program interfaces (34:4-18, Fig. 15.)

However, Parker does not explicitly disclose wherein the conversion of the test program is performed by a conversion module using a source code. The Examiner takes Official

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Notice that it is old and well known to port program by using a compiler and program source code. Therefore, it would have been obvious to one of ordinary skill in the art to use a compiler and source code in porting the text executive, as disclosed by Parker. One would have been motivated to use a compiler and source code so as to port a program as it was the most time and cost efficient method of porting.

Claim 2: Parker et al. discloses the method as recited in claim 1, wherein the at least one representation of the first value is unique to at least one of the plurality of interfaces (8:26-53.)

Claim 3: Parker et al. discloses the method as recited in claim 2, wherein the at least one representation of the first value is identified automatically prior to providing the at least one representation to the application program (3:63; 8:26-53.)

Claim 5: Parker et al. discloses the method as recited in claim 1, wherein the identified application program is an application program to be tested (Fig. 3; 6:56-7:12.)

Claim 10: Parker et al. discloses the method as recited in claim 1, further comprising receiving one or more results from the application program through the corresponding one or more interfaces that are intended to access the application program (11:57-12:31.)

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Claim 11: Parker et al. discloses the method as recited in claim 10, further comprising, based on the received one or more results, identifying an expected result by which the received one or more results can be compared (11:57-12:31.)

Claim 14-20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parker in view of Winter (5,884,042.)

Claim 14, 22: Parker discloses, in a computerized system environment including computer-executable instructions, and plurality of interfaces for accessing the computer-executable instructions, a method of testing an application program through each of the plurality of interfaces using a single testing program, the method comprising:

- a. identifying a plurality of interfaces (Fig. 15: 808, 810, 814, GUI 1, GUI 2, GUI 3) that are intended to access an application program ("logical" application program. 5:43-45);
- b. sending a first value ("T commands embodied in the test script", e.g. "MENU_Pick("File/Open)") and "TF_SetText("\$Filename", "A"), Table 2) to the application program using each of the plurality of identified interfaces (33:54-56), wherein the first value is sent using an application program interface (super class embodied in the test script; 5:63-66) that is common to each of the plurality of identified interfaces (Abstract);

- c. receiving a plurality of results from the application program, wherein each result in the plurality corresponds to an identified one of the plurality of interfaces (34:7-17);
- d. comparing the plurality of results with each other to identify an expected result (11:57-12:31.)

However, Parker does not explicitly disclose using statistical analysis to identify an expected result, and using the expected result as a baseline of comparison to validate results of additional tests using the same application program or same application program interface that is common to each of the plurality of identified interfaces. Winter discloses a similar system wherein statistical analysis is used to obtain a baseline (expected result) to be used for future tests (78:48-56.) Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use statistical analysis to identify a baseline for future testing as disclosed by Winter, in the disclosure of Parker. One would have been motivated to use statistical analysis for baseline determination for auto diagnostic purposes for other instruments (Winter, 79:14-25.)

Claim 15: Parker and Winter disclose the method as recited in claim 14. Parker further discloses further comprising sending a next value to the application program for each of the plurality of identified interfaces (11:57-12:31.)

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Claim 16: Parker and Winter disclose the method as recited in claim 15. Parker further discloses further comprising receiving a next result from the application program that is based in part on the next value that has been sent to the application (11:57-12:31; 33:67-4.)

Claim 17: Parker and Winter disclose the method as recited in claim 16. Parker further discloses further identifying that the application is interoperable with at least one of the identified interfaces by comparing the next result with the expected result (11:57-12:31; 33:67-4.)

Claim 18: Parker and Winter disclose the method as recited in claim 14. Parker further discloses further comprising generating a test program that is configured to access the application program through the identified common application program interface (Fig. 4: test tool: test executive + test driver.)

Claim 19: Parker and Winter disclose the method as recited in claim 18. Parker further discloses further comprising identifying one or more other application program interfaces that are common to the identified user interfaces (Fig. 15: 814.)

Claim 20: Parker and Winter disclose the method as recited in claim 19. Parker further discloses further comprising converting the test program such that it is configured to access the identified application program through at least one of the one or more other

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application program interfaces (“the test tool has test drivers for all of the popular GUI's, a given test script can drive not only multiple targets simultaneously, but multiple heterogeneous targets”, 34:4-6; “the test executive relies on its own portable multi-threading package”, 34:16; Fig. 15.)

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Parker in view of Cordero.

Claim 4: Parker et al. discloses the method as recited in claim 1. However, Parker does not explicitly disclose wherein the plurality of interfaces includes at least one telephone user interface. Cordero discloses a similar method for multi-platform testing, wherein the plurality of interfaces includes at least one telephone user interface (par. 009, cellular devices.) Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include a telephone user interface. One would have been motivated to combine the teaching of Parker with Cordero so as to enable application testing on varied platform that suitable to run the application (par. 009.)

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Parker in view of Bailey (6,981,180.)

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Claim 23: Parker et al. discloses the method of claim 1. However, Parker does not explicitly disclose, wherein providing at least one representation of a first value to the application program through the common application program interface comprises:

- a. automatically identifying a plurality of isomorphisms of a value that are specific to one of the interfaces from among the identified plurality of interfaces; and
- b. testing the identified isomorphisms of the value such that different forms of one or more values may be tested.

Bailey discloses a method for testing, wherein providing at least one representation of a first value to the application program through the common application program interface comprises:

- a. automatically identifying a plurality of isomorphisms of a value that are specific to one of the interfaces from among the identified plurality of interfaces; and
- b. testing the identified isomorphisms of the value such that different forms of one or more values may be tested (3:58-4:3.)

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize isomorphisms in system testing as disclosed by

Bailey, in the teachings of Parker. One would have been motivated to utilize isomorphisms in system testing so as to provide varying degrees of validation (3:58-4:3.)

Response to Arguments

Applicant's arguments with respect to claims 1-5, 10-11, 14- 22, 23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Belousov whose telephone number is (571) 270-1695. The examiner can normally be reached on Mon-Fri (alternate Fri off) EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dennis Chow can be reached on (571) 272-7767. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3800.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven P Sax/
Primary Examiner, Art Unit 2174

AB
11/23/2009